

REMARKS

Claims 1, 3, 5, and 6-10 are all the claims pending in the present application, new claims 7-10 having been added as indicated herein.

With respect to the claims 1, 3, 5, and 6, Applicants maintain the previously submitted arguments with respect to claims 1, 3, 5, and 6. Applicants maintain that new dependent claims 7-10 are patentable at least by virtue of their respective dependencies from independent claims 1 and 5.

Applicants further provide the information below in support of patentability of the claimed invention. The following information was at least based on a discussion with Mr. Soohong Daniel Park, who has been the chair of IP over IEEE 802.16 Networks (16ng) working group since 2006. Mr. Park clearly would be considered to be one of ordinary skill in the art.

Mr. Soohong Daniel Park refers to two documents below, documents D1 and D2. D1 is enclosed herewith and is a document which describes MAC addresses. This document can also be obtained at <http://compnetworking.about.com/od/networkprotocolsip/l/aa062202a.htm>.

Document D2 is a document which contains company IDs issued by a standard body, and it can be accessed D2 at: <http://standards.ieee.org/regauth/oui/oui.txt>.

As evident in D1, the first half of a MAC address contains the ID number of the adapter manufacturer (company ID of the present invention), the second half of the MAC address represents the serial number assigned to the adapter by the manufacturer. The ID number of the adapter manufacturer is regulated by an Internet standards body.

The first half of the MAC address is a part which is assigned by the Internet standards body, and thus the value of the first half of the MAC address is fixed per a manufacturer. And,

the second half of the MAC address is a part which is assigned by the manufacturer, thus the manufacturer freely allocates the value of the second half of the MAC address.

Since the ID number of the adapter manufacturer is a fixed value per a manufacturer, the manufacturer can safely and simply allocate device IDs identifying the type of device in an unused bit area excluding bit area occupied by the fixed value to represent the ID number of the adapter manufacturer among the first half of a MAC address. However, the serial number to be assigned by the manufacturer is unlimitedly extendable as long as the bit area of the second half of the MAC address allows. That is, the number of adapters (e.g., device) which the manufacturer manages or produces is not fixed, but increasingly variable. So, the manufacturer will not want to sacrifice the area which can be used for the serial number, due to other purposes (for example, the device ID), and thus the concept of placing device ID in the area which can be used for serial number, which the Examiner alleges, is not practical.

The above explanation is mainly focused on placing the device ID in an unused bit area among the company ID, but can similarly apply to placing the device ID between the company ID and the serial number.

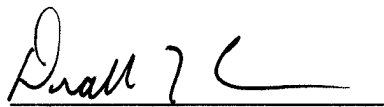
As indicated in D2, the ID number of Samsung Electronics is "00-00-F0 (hex)". The last two hexadecimal "F0" is unique to Samsung Electronics, and "F0" never occurs at the last two hexadecimal of the ID number of other manufacturers. That is, the manufacturer, Samsung Electronics can be identified by the last two hexadecimal "F0", thus Samsung Electronics can use, for example, the first two hexadecimal of the ID number of Samsung Electronics, as device ID.

At least based on the above-provided information, as well as the previously submitted arguments, Applicants maintain that the previously applied references, either alone or in combination, do not disclose or suggest at least, "providing an interface ID area comprising a company ID area and a serial number area using an EUI-64 ID format; and identifying the devices using device ID information for identifying types of the devices recorded in an unused area in the company ID area and using unique numbers assigned to devices recorded in the serial number area, wherein the unused area in the company ID area is an area excluding a used area used for representing manufacturers of the devices in the company ID area," as recited in claim 1 and similarly recited in claim 5.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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23373

CUSTOMER NUMBER

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D1:

The MAC Address

An Introduction to MAC Addressing

An [Article](#) by your Guide [Bradley Mitchell](#)

In computer networking, the Media Access Control (MAC) address is every bit as important as an [IP](#) address. Learn in this article how MAC addresses work and how to find the MAC addresses being used by a computer... (*see below*)

What Is a MAC Address?

The MAC address is a unique value associated with a network [adapter](#). MAC addresses are also known as **hardware** addresses or **physical** addresses. They uniquely identify an adapter on a [LAN](#).

MAC addresses are 12-digit hexadecimal numbers (48 bits in length). By convention, MAC addresses are usually written in one of the following two formats:

MM:MM:MM:SS:SS:SS

MM-MM-MM-SS-SS-SS

The first half of a MAC address contains the ID number of the adapter manufacturer. These IDs are regulated by an Internet standards body (*see sidebar*). The second half of a MAC address represents the serial number assigned to the adapter by the manufacturer. In the example,

00:A0:C9:14:C8:29

The prefix

00A0C9

indicates the manufacturer is Intel Corporation.

More of this Feature

[Part 2: Finding MAC Addresses](#)

[Part 3: Changing MAC Addresses](#)

Join the Discussion

"I am just confused about why the router will respond with its own MAC address and not the MAC address of the destination host."

"If the router keeps an ARP table of IP-to-MAC addresses, then why doesn't it respond to the source host with the MAC of the destination host, regardless of whether they're on the same subnet?"

-TJRUGG

Related Resources

[IP Tutorials](#)

Elsewhere on the Web

[Vendor/Ethernet MAC Address Lookup](#)